WASHINGTON, D.C. , Congressman John W. Olver (D-1st District) delivered the following speech abou

I believe climate change with all its varied impacts will prove to be the great environmental challenge o

Two broad indisputable conclusions have been reached:
1. The earth's surface has warmed in this past century by approximately 1C or 2F.
2. The atmospheric concentration of CO2 readily and accurately measurable has risen very rapidly, par
This latter conclusion is often characterized as the "hockey stick".
As these basic conclusions became clear, scientists have devised ever more sophisticated experimen

Just as examples,

1. In the short term, say hundreds of years, we have accurate recent measurements of CO2, but furthe
2. In the longer time range, say thousands of years, we have to use such things as tree ring records, se
3. Still longer time ranges, say tens of thousands of years, we can look at the deposition sequences in s
4. And still longer time range, say hundreds of thousands of years, we can look at cores from glaciers th
The farther these techniques reach back from modern record keeping, the more gaps there are in the r

As time passes, new experiments and technology allow an ever clarifying picture. As this body of kno

For me, the experiments that totally focused my attention were the data from long stable glacial ice cor

Think of it! In the history of our species, of modern man, 100,000 years, and our species ancestors, Ne

The explanation for this lies I believe, in how human beings produce and use energy that drives all of o

1. Primitive peoples used biomass, wood, and charcoal for their energy source for heat, running pottery
2. By the time the first billion people populated the earth (1820), we began to rely on windmills to grind g
3. With the growth of large cities, highly specialized occupations, markets, and trading empires, we de
4. By the early 20th century, the great industrializing countries received most of their power from fossil f
There are vast differences in the use of energy in our world. There are 6.3 billion people in 2003 who

In this age of globalization, instant real time media and television, everyone all over the world realizes t

But, just consider hypothetically, if China alone industrialized using energy as we do, and all other cour

And, if India alone (hypothetically) industrialized using energy as we do, and all other countries are fro

By such action of India and China, as a first approximation, CO2 in the atmosphere would go up to rou

What are already the consequences of the global warming that 380ppm of CO2 in the atmosphere has

In February, the California Institute of Technology published a study showing that every 40 hours, the C

A second study being published in Science, finds that the Antarctic ice sheet is also shrinking rapidly.

We are seeing serious threats to human health. With hotter, longer and more humid warm weather bro

Forestry scientists in Canada have correlated warming winters with the spread of a mountain pine barl

As a scientist, I believe climate change is the single most critical environmental issue of the 21st centu

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in June 1992

Clearly, these voluntary emission controls had no teeth. As it turns out, American CO2 emissions hav

From the day George W. Bush was installed as president he has actively tried to scuttle the Kyoto Trea

Despite all this, on February 16, 2005, the protocol entered into force, when Russia ratified and 55 An

What other industrial nations have done:

European Union

- Committed to reducing GHG emissions 8 percent below 1990 by 2008-2012.
- Established a Mandatory Emissions Trading Scheme that limits CO2 emissions from 12,000 insta
- Committed to a Renewable Electricity Directive, which sets a goal of increasing share of renewabl

Japan

- Committed to reduce GHG emissions 6 percent below 1990 by 2012.
- Set standards to increase fuel economy of new light-duty passenger and commercial vehicles by a
- Committed to renewable energy goals, including a 20-fold increase in wind capacity and a 14-fold

The U.S.
Now, let's take a look at what we've done in the U.S, besides trying to scuttle and now thwart the Kyoto

The Congress passed the Bush energy initiative, in which 95 percent of the incentives go to:

1. more production and use of fossil fuels that will worsen global warming, and
2. a renewed development of nuclear energy, which produces no CO2 but comes with its own environm

Congress passed this bill with virtually no Democratic votes. This new set of incentives comes at a ti

- 22 percent increase in funding for clean energy research
- To change how we power homes and offices
- To change how we power automobiles
- By research on better batteries and cars that run on Hydrogen
- By research on ethanol production from corn, woodchips, and switch grass

Including two goals:

1) to make such ethanol competitive within six years and
2) to replace 75 percent of our oil imports from Middle East by 2025.

One week later the president's budget for FY07 was released. It is the actual budget, as finally passed

I'm trained as a scientist and a skeptic and I admit that it is not easy to follow a shell game that reorgan

But, I've been able to identify:

- $24 million has been cut from the Office of Energy efficiency and Renewable Energy for FY07 cor
- $16 million has been cut from the Vehicles Technology Program.
- $5 million increase for development of wind technology
- Total elimination of funding for geothermal research
- $124 million increases for solar and biomass
- $7 million increase for hybrid and electric propulsion program, but skewed toward long range hydr

All told, I will be greatly surprised if the pledged 22 percent increase in funding for clean energy researc

But I do want to examine the president's goal to make ethanol production from switch grass competitive

The Natural Resources Defense Council and the Union of Concerned Scientists have done an in deptl

At todayís standards, namely:
a. Present fuel efficiency of motor vehicle engines
b. Present gallonage of ethanol obtainable/ton of switch grass
c. Present tons of switch grass produced/acre
d. And assuming no change in life style, i.e. how much we travel
This would currently require 1,750 billion acres (2,900,000 square miles) of land, far more than what is a

However, if we:
1. Double the efficiency of our auto engines
2. Double the efficiency of conversion of switch grass into ethanol
3. Increase switch grass production/acre by 2 _ times
4. Change our lifestyle to reduce our travel by half (this entails curing suburban sprawl and increasing t
5. Develop biorefineries that produce a host of new products equivalent to what oil refineries produced
We could accomplish this goal with only 200,000 square miles of land committed.

However, to do so we need at least $1.5 billion/year for 10 years. Unfortunately, the president has offe

Indeed, we must establish a national plan of action to design, invent and deploy clean energy technolo

Our president has given us minimalist goals that show no understanding of the scope of the global war

In the end, only a completely revamped energy policy can eliminate our dependence on foreign oil, cou

Again, I thank you all for being here and I thank you for your attention to this critical issue.

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